

CLAIMS

What is claimed is:

- 1           1. A method, comprising:  
2           receiving an optimized library via a network, the optimized library including at  
3           least one optimized routine for a processing system; and  
4           providing the optimized routine for use by an application executing on the  
5           processing system to interact with a hardware entity of the processing system.
- 1           2. The method of claim 1 wherein the optimized routine comprises updated code  
2           for use by the application to increase interaction efficiency with the hardware entity of  
3           the processing system.
- 1           3. The method of claim 1 wherein the receiving the optimized library via the  
2           network comprises receiving the optimized library via the network during an operating  
3           system ("OS") runtime of the processing system.
- 1           4. The method of claim 3, further comprising:  
2           receiving an optimization header packet via the network; and  
3           determining that the optimization library is suitable for the processing system  
4           based on a module type field within the optimization header packet.

1           5. The method of claim 4 wherein the module type field includes a globally  
2     unique identifier (“GUID”) for determining that the optimization library is suitable for  
3     the processing system.

1           6. The method of claim 4, further comprising:  
2           ignoring other optimized libraries broadcast on the network if corresponding other  
3     optimization packets are determined to be unsuitable for the processing system based on  
4     the module type filed.

1           7. The method of claim 3, further comprising:  
2           storing the optimized library to a nonvolatile storage device of the processing  
3     system; and  
4           inserting a entry into a pointer table of the processing system, the entry pointing  
5     to the optimized library.

1           8. The method of claim 7 wherein the pointer table comprises one of a Secondary  
2     System Description Table (“SSDT”) defined by an Advanced Configuration and Power  
3     Interface (“ACPI”) and an Extensive Firmware Interface (“EFI”) configuration table.

1           9. The method of claim 7 wherein providing the optimized routine for use by the  
2     application, comprises:  
3           executing an optimization extension bound to the application, the optimization  
4     extension to request a load of the optimized library;

5            querying the pointer table for the entry pointing to the optimized library stored  
6            within the nonvolatile storage device; and  
7            loading the optimized library into system memory of the processing system.

1            10. The method of claim 9 where providing the optimized routine for use by the  
2            application further comprising:  
3            advertising the entry point for the optimized routine of the optimized library to the  
4            application, the entry point referencing a location within the system memory of the  
5            optimized routine.

1            11. The method of claim 9 wherein the optimized library is further loaded into a  
2            user mode space of the processing system.

1            12. The method of claim 1 wherein the processing system comprises a  
2            management module of a rack of blade servers, and further comprising forwarding the  
3            optimized library to one or more of the blade servers via an out-of-band channel.

1            13. A machine-accessible medium that provides instructions that, if executed by a  
2            machine, will cause the machine to perform operations comprising: ✓  
3            identifying that an optimized library transmitted over a network is intended for the  
4            machine, the optimized library including at least one optimized routine for interacting  
5            with a hardware entity of the machine;  
6            receiving the optimized library via the network; and

7            advertising the optimized routine for use by an application executing in a user  
8            mode space of the machine to interact with the hardware entity.

1            14. The machine-accessible medium of claim 13 wherein identifying the  
2            optimized library, receiving the optimized library, and advertising the optimized library  
3            are to be performed during an operating system (“OS”) runtime of the machine.

1            15. The machine-accessible medium of claim 14 wherein the optimized routine  
2            comprises updated code to increase interaction efficiency with the hardware entity of the  
3            machine.

1            16. The machine-accessible medium of claim 15 wherein the hardware entity  
2            comprises a processor of the machine.

1            17. The machine-accessible medium of claim 13 wherein identifying that the  
2            optimized library transmitted over the network is intended for the machine further  
3            comprises performing operations, including:  
4            receiving an optimization header packet via the network; and  
5            determining that the optimization library is suitable for the machine based on a  
6            module type field within the optimization header packet.

1           18. The machine-accessible medium of claim 13, further providing instructions  
2           that, if executed by the machine, will cause the machine to perform further operations,  
3           comprising:

4           storing the optimized library to a nonvolatile storage device of the machine; and  
5           inserting an entry into a pointer table of the machine, the entry to point to the  
6           optimized library.

1           19. The machine-accessible medium of claim 18, further providing instructions  
2           that, if executed by the machine, will cause the machine to perform further operations,  
3           comprising:

4           executing an optimization extension bound to the application, the optimization  
5           extension to request a load of the optimized library;  
6           querying the pointer table for the entry pointing to the optimized library stored  
7           within the nonvolatile storage device; and  
8           loading the optimized library into the user mode space of the machine.

1           20. A processing system, comprising:

2           a processor;  
3           a network link communicatively coupled to the processor; and  
4           a storage device communicatively coupled to the processor, the storage device  
5           including instructions which when executed by the processor perform operations,  
6           comprising:

7 monitoring traffic on the network link for an optimized library including at  
8 least one optimized routine intended for the processing system;  
9 receiving the optimized library via the network link; and  
10 advertising the optimized routine to a user mode space of the processing  
11 system for use by an application to interact with a hardware entity of the  
12 processing system.

1 21. The processing system of claim 20 wherein the instructions are to be  
2 executed by the processing system during an operating system runtime of the processing  
3 system.

1 22. The processing system of claim 20 wherein execution of the instructions  
2 further performs operations comprising:  
3 parsing an optimization header packet received via the network link; and  
4 recognizing whether the optimized library is intended for the processing system  
5 based on a module type field of the of the optimization header packet.

1 23. The processing system of claim 20 wherein the application includes an  
2 optimization extension to request a load of the optimized library upon execution of the  
3 application.

1 24. The processing system of claim 20 wherein the hardware entity is the  
2 processor.

1           25. The processing system of claim 24 wherein the optimized routine comprises  
2   updated code for interacting with the processor in a more efficient manner.

1           26. A system, comprising: /  
2           a chassis having a plurality of slots to receive a plurality of blade servers; and  
3           a management module mounted to the chassis and communicatively coupled to  
4   each of the plurality of slots to communicate with the plurality of blade servers, the  
5   management module to receive an optimized library via a network, the optimized library  
6   including at least one optimized routine for interacting with a hardware entity, the  
7   management module to forward the optimized library to one or more of the plurality of  
8   blade servers.

1           27. The system of claim 26 wherein the management module is configured to  
2   receive the optimized library during an operating system ("OS") runtime and to forward  
3   the optimized library during OS runtimes of the plurality of blade servers.

1           28. The system of claim 26 wherein the management module includes a network  
2   agent to monitor traffic on the network to identify the optimized library as intended for  
3   the one or more of the plurality of blade servers.

1           29. The system of claim 26 wherein the management module forwards the  
2     optimized library to the plurality of blade servers via an out-of-band communication  
3     channel.

1           30. The system of claim 26 wherein the optimized routine comprises updated  
2     code for an application executing on the one or more of the plurality of blade servers to  
3     interact with the hardware entity in a more efficient manner and wherein the hardware  
4     entity comprises a processor of each of the one or more plurality of blade servers.